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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/812,628	03/29/2004	Kevin Swayne O'Hara	13DV-14043-5/11713 (21635	3488

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EXAMINER	
SHEEHAN, JOHN P	
ART UNIT	PAPER NUMBER
1742	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	01/04/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)	
	10/812,628	O'HARA ET AL.	
	Examiner	Art Unit	
	John P. Sheehan	1742	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____ .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) 15-19 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) 15-19 is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 3/29/04 .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

Specification

1. The disclosure is objected to because of the following informalities:

I. In the specification on page 10, paragraph 0045 it is disclosed that, "Alloys E1-E18 are alloys within the scope of the present invention". However, Alloys E1 to E8 and E13 to E15 contain no titanium and therefore are not within the scope of the disclosed invention, which requires 0.1 to 1.2 weight % Ti (see the specification paragraph 0027). Further, Alloys E1 to E4, E9, E10, E13, and E15 to E18 contain only 0.15% Hf and thus are not within the scope of the disclosed invention which requires 0.3 to 1 % Hf (see the specification paragraph 0028). In view of this, it is not clear how Alloys E1 to E10 and E13 to E18 are considered to be "within the scope of the present invention".

II. The status of the parent application, 10/229,741, should be updated in the first paragraph of the specification that was added by the Preliminary Amendment submitted March 29, 2004.

Clarification is required.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 15 to 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Henry (US Patent No. 4,388,124).

Henry teaches a nickel base superalloy having a composition that overlaps the nickel base superalloy recited in the instant claims (Abstract and column 4, the Table). Henry teaches a tantalum content of 1 to 5.9 wt. % (Abstract), which encompasses the baseline tantalum content of "more than about 5 weight percent" and the modified tantalum content of at least 1.5 weight percent less than the baseline tantalum content" recited in the instant claims.

The claims and Henry differ in that Henry does not teach the instantly claimed steps of selecting a baseline alloy containing at least 5 wt% Ta and modifying the baseline nickel base superalloy to a Ta content that is at least 1.5 wt% less than the Ta content of the baseline alloy and the sum of Hf, Nb, Ti and W is at least greater than the baseline sum of these elements.

However, one of ordinary skill in the art at the time the invention was made would have considered the invention to have been obvious because Henry's Ta proportions overlap both the claimed baseline alloy Ta content and the claimed modified Ta content recited in the instant claims and therefore are considered to establish a prima facie case of obviousness. It would have been obvious to one of ordinary skill in the art to select any portion of the disclosed ranges including the instantly claimed ranges from the ranges disclosed in the prior art reference, In re Peterson 65 USPQ2d 1379 (CAFC

2003). Also, In re Geisler 43 USPQ2d 1365 (Fed. Cir. 1997); In re Woodruff, 16 USPQ2d 1934 (CCPA 1976); In re Malagari, 182 USPQ 549, 553 (CCPA 1974) and MPEP 2144.05.

It is the Examiner's position that the instantly claimed process is the result of,

> "The normal desire of scientists or artisans to improve upon what is already generally known provides the motivation to determine where in a disclosed set of percentage ranges is the optimum combination of percentages", In re Peterson 65 USPQ2d 1379 (CAFC 2003).

4. Claims 15 to 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over each of Darolla et al. (Darolla, US Patent No. 6,444,057) or Tamaki et al. (Tamaki, US Patent No. 6,051,083).

Each of the references teaches a single crystal nickel base superalloy for use in making gas turbine parts (Darolla, column 1, lines 54 to 59 and Tamaki, column 1, lines 6 to 15) having a composition that overlaps the instantly claimed alloy (Darolla, column 2, lines 1 to 26 and Tamaki, column 7, lines 37 to 55). Darolla teaches a Ta content of 4 to 12 wt% (column 2, line 8) and Tamaki teaches a Ta content of 2 to 12 wt% (column 7, line 44), which encompass the baseline tantalum content of "more than about 5 weight percent" and the modified tantalum content at least 1.5 weight percent less than the baseline tantalum content" recited in the instant claims.

The claims and the references differ in that the references do not teach the instantly claimed steps of selecting a baseline alloy containing at least 5 wt% Ta and modifying the baseline nickel base superalloy to a Ta content that is at least 1.5 wt%

less than the Ta content of the baseline alloy and the sum of Hf, Nb, Ti and W is at least greater than the baseline sum of these elements.

However, one of ordinary skill in the art at the time the invention was made would have considered the invention to have been obvious because Darolla's and Tamaki's Ta proportions overlap both the claimed baseline alloy Ta content and the claimed modified Ta content recited in the instant claims and therefore are considered to establish a prima facie case of obviousness. It would have been obvious to one of ordinary skill in the art to select any portion of the disclosed ranges including the instantly claimed ranges from the ranges disclosed in the prior art reference, In re Peterson 65 USPQ2d 1379 (CAFC 2003). Also, In re Geisler 43 USPQ2d 1365 (Fed. Cir. 1997); In re Woodruff, 16 USPQ2d 1934 (CCPA 1976); In re Malagari, 182 USPQ 549, 553 (CCPA 1974) and MPEP 2144.05.

It is the Examiner's position that the instantly claimed process is the result of,

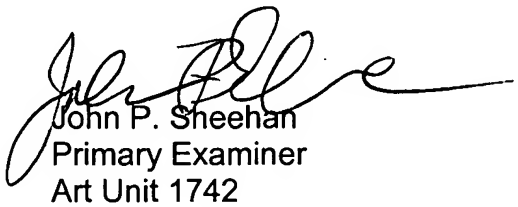
> "The normal desire of scientists or artisans to improve upon what is already generally known provides the motivation to determine where in a disclosed set of percentage ranges is the optimum combination of percentages", In re Peterson 65 USPQ2d 1379 (CAFC 2003).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John P. Sheehan whose telephone number is (571) 272-1249. The examiner can normally be reached on T-F (6:45-4:30) Second Monday Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Roy King can be reached on (571) 272-1244. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (571) 272-1700.



John P. Sheehan
Primary Examiner
Art Unit 1742

jps